

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 36, 57, 67, and 68 have been cancelled, and claims 35, 37-39, 41-48, 50, 51, 54-56, 58, 60, 62-64, and 66 have been amended. Support for the amendments is provided for example in the original claims and paragraphs [0008], [0009], and [0080] of the published specification. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

Claims 35-41, 45-63, and 65-68 were rejected, under 35 USC §102(b), as being anticipated by Rey "RTP payload Format for 3GPP Timed Text," IETF Internet Draft, September 2003. Claims 42-44 and 64 were rejected, under 35 USC §103(a), as being unpatentable over Rey in view of Ott "Extended RTP Profile for RTCP-based Feedback (TRP/AVPF), " Internet-Draft, June 6, 2003. To the extent these rejections may be deemed applicable to the amended claims presented herein, the Applicants respectfully traverse as follows.

Claim 35 now defines a method for transmitting formatted text from a server to a client. According to this method, the server determines whether a format description for a text sample to be transmitted was provided to the client previously. If not, the server communicates both the text sample and its format description to the client; otherwise, the server communicates the text sample without its format description to the client in a data packet. When communicated, the format description is signaled in-band to the client. The claimed subject matter provides an

advantage of reducing the amount of overhead information communicated to the client (see specification page 3, lines 15-17).

By contrast to the Applicants' claimed subject matter, Rey discloses that when a server communicates a sample description to a client through in-band signaling, the sample description is extracted for each sample from the sample's SPLDESC header entry in a Sample Description Box (see Rey § 4.3, lines 1-4). In this way, according to Rey, each received packet can be decoded without dependency on another packet (see § 4.3, last two lines).

Thus, Rey discloses, for in-band signaling of a format description by a server, that a communicated packet always contains a format description for each text sample within the packet, whereas the Applicants' claimed subject matter only communicates a format description with a text sample, through in-band signaling, when a server determines that the format description has not been previously communicated to a client. As a result, Rey does not identically disclose the claimed subject matter.

Accordingly, the Applicants submit that Rey does not anticipate the subject matter now defined by claim 35. Independent claim 56 similarly recites the above-mentioned subject matter distinguishing method claim 35 from Rey, but with respect to an apparatus. Therefore, the rejections applied to claims 42-44 are obviated and allowance of claims 35 and 56 and all claims dependent therefrom is deemed to be warranted.

Independent claim 58 now defines a method for operating a mobile client in which the client determines if a received packet containing a text sample also includes a format description associated with the text sample. If so, the client uses the received format description to format the text sample; otherwise, the client selects an associated format description for the text sample

from previously received format descriptions and uses the selected format description to format the text sample. As is the case with claims 35 and 56, the format description is signaled in-band to the client.

As discussed above in connection with claim 35, Rey discloses that for in-band signaling of a format description to a client, a communicated packet always contains a format description for each text sample within the packet. Such is not the case with the subject matter of claim 58; instead, a packet will sometimes include a format description associated with a text sample and sometimes will not. The claimed client must retrieve an associated format description for each received text sample either from the packet containing the text sample or, if such format description is not included in this packet, from previously received format descriptions contained within one or more previously received packets. Since Rey does not recognize the circumstance in which an in-band signaled format description does not accompany its associated text sample, it necessarily follows that Rey does identically disclose the Applicants' claimed subject matter of selecting an associated format description for a text sample from among a plurality of format descriptions contained within one or more previously received packets.

Accordingly, the Applicants submit that Rey does not anticipate the subject matter now defined by claim 58. Independent claim 66 similarly recites the above-mentioned subject matter distinguishing method claim 58 from Rey, but with respect to an apparatus. Therefore, the rejection applied to claim 64 is obviated and allowance of claims 58 and 66 and all claims dependent therefrom is warranted.

To promote a better understanding of the patentable distinctions of the claimed subject matter over the applied references, the Applicants provide the following additional remarks.

Rey specifies an RTP payload format for the transmission of 3GPP Timed Text (3rd Generation Partnership Project). 3GPP Timed Text is to be understood as a decorated text media format and may be provided by means of streaming to individual clients (see Rey page 3, last four paragraphs).

Sections 4 and 4.1 of Rey relate to the provision of text samples from a media server to a client. As for example shown in Rey's Fig. 1, on page 6, the RTP Payload structure for conveying individual text samples to the client comprises a concatenation of text headers, THDR, and their associated text samples. In case only one text sample fragment is comprised in an RTP packet, the text header is preceded by a fragmentation header, FHDR, as for example illustrated in Rey's Fig. 2.

Further, as illustrated in Rey's Figs. 3 and 4, it is possible that the sample descriptions SPLDESC of the individual text samples are conveyed within the RTP packet by means of in-band signaling. Optionally, out-band signaling may be used.

The text header provided for each text sample contains the text sample length, SLEN, a text sample entry index, SIDX, which indicates a reference index for the text sample to its description, and a text sample duration, SDUR, indicating the sample duration in time stamp units of the text sample (see Rey § 4.1).

Further, Rey's section 4.3, starting on page 14, outlines a sample description SPLDESC header in more detail. It is important to notice that the key concept proposed by Rey is that all RTP packets provided from the server to the client are self-contained. This means that each individual RTP packet comprises a number of text samples as well as the sample descriptions

used by the text samples within an individual RTP packet. Thereby, it may be ensured that each packet may be decoded without the need to refer to any previously received RTP packet.

In particular, this solution proposed by Rey is based in the assumptions: (1) that individual RTP packets on the downlink may be lost and (2) multicast or broadcast service to the client is used without feedback capabilities. In view of these assumptions, it is clear that only self-contained RTP packets allow for robust transmission of text samples to the client in case individual RTP packets are lost.

This key concept of Rey is, for example, reflected in Rey's statement on page 15, lines 1 and 2, from which it becomes clear that the SIDX values present in the SPLDESC field of an RTP packet must be present in at least one of the text samples in the payload. As outlined above, this implies that each RTP packet in which the sample descriptions are transmitted in-band must contain all sample descriptions used by the text samples within the payload of the packet.

Moreover, this concept of using self-contained packets is also indicated in Rey's section 4.2.1, on page 9, relating to the fragmentation of text samples. Rey states that the rules defined in annex 1 allow the receiver to use the received fragments without having to receive the whole text sample or complete modifier boxes. This passage expresses nothing else than that each RTP packet comprising a text sample fragment also needs to include the complete sample description of the complete text sample in case of in-band signaling in order to allow the client to use the received fragment without having to receive the whole text sample.

Thus, Rey focuses on the provision of text samples and their sample descriptions by in-band or out-of-band signaling. It is important to notice that all RTP packets have to be self-

contained, i.e., each RTP packet comprises all sample descriptions which are used by the text sample (or fragment) in its payload.

A concept underlying the Applicants' claimed invention according to the independent claims breaks with this principle of using self-contained packets. As becomes clear from the feature combinations of all independent claims, it is no longer required that the packets are self-contained. Hence, the streaming server of claims 35 and 56 does not only determine whether a text sample format description used by a text sample to be comprised within a packet to be transmitted to the client is already included in the packet to be transmitted but further determines whether data packets which have been transmitted earlier have comprised the text sample format description necessary for displaying the respective text sample to be transmitted. Accordingly, also the operation of the mobile client (see e.g., claims 58 and 66) is different from the prior art in that the client will not only search for a text sample format description for a text sample within the packet providing the respective text sample but also searches for the text sample format descriptions in a data packet received earlier.

Thus, it is submitted that the subject matter of the independent claims distinguishes over Rey.

In the Office Action, it is indicated that enumeration point 3 in section 2.1 of Rey (equivalent to page 4, lines 17 to 24, as cited in the Office Action) teaches the concept underlying the claimed invention. The Applicants disagree.

First of all, the statement that it is sensible to transmit the sample description box once in the initialization phase and to update it accordingly upon demand, if needed - in order to save overhead - refers to out-of-band signaling. Moreover, it is to be noted that when signaling all

sample descriptions in the initialization phase, several problems on the client's side may occur. For example, it may not be ensured that the buffer space at the client is sufficient to store all text sample description necessary for correctly displaying the stream text samples. In particular, for live streaming sessions or live created content, it is also not possible to determine all sample description during initialization, as the session's data to be transmitted are not available at session start.

Also considering the teaching in the remaining sections of Rey, the skilled person in the art would not receive any hints to arrive at the claimed invention without exercising an inventive step. For example, considering the teaching of section 4.3 of Rey (see page 15, lines 3 and 4), it is clear that the sample attribute fields defining the sample description are associated with one SIDX value during the whole session, i.e., may not be changed dynamically during an ongoing session. Thus, although there is identified a need for providing an update mechanism by Rey, no adequate solution is proposed by the document.

Moreover, even if the skilled person in the art would consider providing an update mechanism by re-using a SIDX value for different sample descriptions, such skilled person still does not receive any hints towards breaking the concept of providing self-contained RTP packets. Further, the Applicants' claimed invention does also not require the transmission of sample descriptions during the initialization of the session but rather refers to a continuous provision of text samples and their description for enabling also the transmission of live-created contents.

Thus, the Applicants submit that the independent claims distinguish over the teachings of Rey.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

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